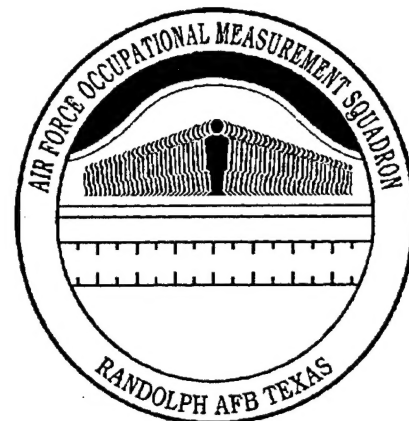


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**UNITED STATES  
AIR FORCE**



# ***OCCUPATIONAL SURVEY REPORT***

19960724 025

IMAGERY SYSTEMS MAINTENANCE

AFSC 2E5X1

AFPT 90-2E5-067

JUNE 1996

**OCCUPATIONAL ANALYSIS PROGRAM  
AIR FORCE OCCUPATIONAL MEASUREMENT SQUADRON  
AIR EDUCATION and TRAINING COMMAND  
1550 5th STREET EAST  
RANDOLPH AFB, TEXAS 78150-4449**

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## PREFACE

This report presents the results of an Air Force Occupational Survey of the Imagery Systems Maintenance career ladder, Air Force Specialty Code (AFSC) 2E5X1. Authority for conducting occupational surveys is contained in AFI 36-2623. Computer products used in this report are available for use by operations and training officials.

The survey instrument was developed by 1Lt Jeffrey W. Voetberg, Inventory Development Specialist, with computer programming support furnished by Ms. Olga L. Velez. Mr. Richard G. Ramos provided administrative support. Ms. Christine G. Garcia, Occupational Analyst, analyzed the data and wrote the final report. This report has been reviewed and approved by Mr. James B. Keeth, Chief, Airman Analysis Section, Occupational Analysis Flight, Air Force Occupational Measurement Squadron (AFOMS).

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel. Additional copies are available upon request to AFOMS, Attention: Chief, Occupational Analysis Flight (OMY), 1550 5th Street East, Randolph Air Force Base, Texas 78150-4449 (DSN 487-6623).

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## SUMMARY OF RESULTS

1. Survey Coverage: The Imagery Systems Maintenance career ladder was surveyed to provide current job and task data. Survey results are based on responses from 89 members (61 percent of the total assigned personnel). The sample satisfactorily represents the career ladder population.
2. Specialty Jobs: Structure analysis identified two clusters and two jobs within each cluster. One of the clusters Imagery Systems Maintenance Technician is almost totally oriented toward technical task performance. The other cluster, Supervisor/Manager, is primarily supervisory and management in nature. Within each of these clusters are contained two jobs. The technician cluster is separated by the equipment maintained and the time spent on specific equipment. The supervisory cluster divided according to depth of supervisory duties performed.
3. Career Ladder Progression: Skill level progression for members of the AFSC 2E5X1 career ladder is typical of most career ladders. Three-skill level personnel spend the vast majority of their job time performing technical tasks involving maintenance of a wide variety of imagery systems equipment. At the 5-skill level, personnel are still heavily involved with imagery systems equipment maintenance. Seven-skill level personnel reflect a shift toward supervisory and management work, although many are involved with technical work. The exception to this trend is primarily seen in small imagery shops where the maintenance jobs are often shared.
4. AFMAN 36-2108 Specialty Description: The description accurately describes the technical and supervisory aspects of jobs at the various levels.
5. Training Analysis: The AFSC 2E531 Course Training Standard in the Imagery Systems Career Field Education and Training Plan is generally supported by survey data. However, a few elements were not supported and require review by training personnel and subject-matter experts.
6. Implications: Survey results indicate the present classification structure is supported by survey data. Career ladder training documents are well supported by survey data. Training documents should be reviewed with the OSR data and the EPI responses to evaluate if additional electronic training is required. This is especially true if the AFSC 2E5X1 career ladder is merged with the Television and Intrusion Detection (AFSC 2E1X4) career ladder.

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**OCCUPATIONAL SURVEY REPORT (OSR)  
IMAGERY SYSTEMS MAINTENANCE CAREER LADDER  
AFSC 2E5X1**

**INTRODUCTION**

This is a report of an occupational survey of the Imagery Systems Maintenance career ladder completed by the Air Force Occupational Measurement Squadron. This survey was conducted to collect current data for use in validating career ladder documents and training programs. Survey data will also be used as input to a proposed merger between the Imagery Systems Maintenance, AFSC 2E5X1, and the Television and Intrusion Detection, AFSC 2E1X4, career ladders. The last occupational survey for this career ladder was published in September 1992.

Background

As described in the AFMAN 36-2108 *Specialty Description*, dated 31 October 1994, AFSC 2E5X1 personnel are responsible for installing, maintaining, inspecting, testing, calibrating, repairing, and modifying combat cameras and other imagery related equipment. They are also responsible for preparing and maintaining deployable imagery equipment, facilities and supportive equipment. Equipment maintained by the AFSC 2E5X1 personnel vary from cameras, projectors, processing and printing equipment, electronic imaging and video equipment to mobile processors used to support reconnaissance missions.

The sequence of technical training for this AFSC begins with course L3AQR2E531 100, Electronic Principles, a 74-day course taught at Lackland AFB TX. Upon completion of this course, students proceed to the Basic Imagery Systems Maintenance course AFIS-BISM, a 41-day course taught at the Defense Photography School, at Pensacola NAS FL. Students leave AFIS-BISM with a 3-skill level and either proceed to their first duty assignment or attend the follow-up Advanced Imagery Systems course (number AFIS-AISM), an 18-day course that is also taught at Pensacola NAS. Entry into the career ladder currently requires an Armed Services Vocational Aptitude Battery Electrical score of 39 and a Strength Factor of "J" (weight lift of 60 lbs).

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## SURVEY METHODOLOGY

### Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI) Air Force Personnel Test 90-2E5-067, dated March 1995. A tentative task list was prepared after reviewing pertinent career ladder publications and directives, pertinent tasks from the previous survey instrument, and data from the last OSR. The preliminary task list was refined and validated through personal interviews with 25 subject-matter experts (SMEs) at the technical training location and at the installations listed in the chart below:

BASE	UNIT VISITED	REASON FOR VISIT
Pensacola NAS FL	315 TS/DODA	Resident Technical Training Location
Offutt AFB NE	US STRATCOM 55 CS 20 IS	Typical maintenance sights
Vandenberg AFB CA	30 CS/SCVSS	Maintains motion picture cameras for shuttle
Beale AFB CA	9 IS/INX	Maintains the mobile processor used to support the reconnaissance mission

The resulting JI contains a comprehensive listing of 631 tasks grouped under 15 duty headings and a background section containing 48 questions requesting such information as: grade; duty title; organizational level; functional area; processors, photographic, and graphic equipment maintained; field-related courses completed; and Electronic Principles (EP) employed by members of the career ladder.

### Survey Administration

From May through July 1995, Survey Control Monitors at base training offices worldwide administered the inventory to eligible AFSC 2E5X1 personnel. Members eligible for the survey consisted of the total assigned population of the career ladder, excluding the following: (1) hospitalized personnel; (2) personnel in transition for a permanent change of station; (3) personnel retiring within the time the inventories were administered to the field; and (4) personnel in their jobs less than 6 weeks. Job incumbents were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the Air Force Personnel Center, Randolph AFB TX.

Each individual who completed the inventory first completed an identification and biographical information section and then checked each task performed in his or her current job. After checking all tasks performed, each member then rated each of these tasks on a 9-point scale, showing relative time spent on that task, as compared to all other tasks checked. The ratings ranged from 1 (very small amount time spent) through 5 (about average time spent) to 9 (very large amount time spent).

To determine relative time spent for each task checked by a respondent, all of the incumbent's ratings are assumed to account for 100 percent of his or her time spent on the job and are summed. Each task rating is then divided by the total task ratings and multiplied by 100 to provide a relative percentage of time for each task. This procedure provides a basis for comparing tasks in terms of both percent members performing and average percent time spent.

### Survey Sample

Personnel were selected to participate in this survey to ensure an accurate representation across major commands (MAJCOM) and paygrade groups. All AFSC 2E5X1 personnel with a DAFSC of 2E531, 2E551, and 2E571 were mailed survey booklets. Table 1 reflects the percentage distribution, by MAJCOM, of assigned AFSC 2E5X1 personnel as of March 1995. The 89 respondents in the final sample represent 61 percent of the total assigned personnel. Table 2 reflects the paygrade distribution for these AFSC 2E5X1 personnel. As reflected in both tables, the survey sample accurately reflects the overall AFSC 2E5X1 population.

### Task Factor Administration

While most participants in the survey process completed a USAF JI, selected senior AFSC 2E5X1 personnel were also asked to complete booklets rendering judgments on task training emphasis (TE) or task difficulty (TD). The TE and TD booklets were processed separately from the job inventories. The information gained from these task factor data is used in various analyses and is a valuable part of the training decision process.

Training Emphasis (TE). TE is a rating of the amount of emphasis that should be placed on tasks in entry-level training. The 24 senior AFSC NCOs who completed a TE booklet were asked to select tasks they felt required some sort of structured training for entry-level personnel, and then indicate how much training emphasis these tasks should receive, from 1 (extremely low emphasis) to 9 (extremely high emphasis). Structured training is defined as training provided at resident technical schools, field training detachments, mobile training teams, formal on-the-job training (OJT), or any other organized training method. The interrater reliability for these raters was not acceptable, indicating there was not satisfactory agreement among raters as to which tasks required some form of structured training and which did not. Hence, TE data will not be reported in this survey.

TABLE 1

## COMMAND DISTRIBUTION OF 2E5X1 PERSONNEL

COMMAND	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
ACC	30	26
AMC	11	9
AFSPACCOM	9	9
USEUC	8	8
STRATCOM	8	10
USAFE	6	8
PACAF	6	9
AETC	5	3
AIA	4	6
PACOM	4	5
AFSOC	3	2
AFMC	3	3
OTHER	3	2

TOTAL ASSIGNED\* = 145

TOTAL SURVEYED\*\* = 125

TOTAL IN SURVEY SAMPLE = 89

PERCENT OF ASSIGNED IN SAMPLE = 61%

PERCENT OF SURVEYED IN SAMPLE = 71%

\* Assigned strength as of March 1995

\*\* Excludes personnel in PCS, student, or hospital status, or less than 6 weeks on the job

TABLE 2

## PAYGRADE DISTRIBUTION OF SURVEY SAMPLE

GRADE	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
E-1 - E-3	8	9
E-4	24	27
E-5	35	33
E-6	17	18
E-7	11	12
E-8	4	1
E-9	1	0
TOTAL	100	100

\* Assigned strength as of March 1995

Task Difficulty (TD). TD is an estimate of the amount of time needed to learn how to do each task satisfactorily. The 35 senior NCOs who completed TD booklets were asked to rate the difficulty of each tasks using a 9-point scale (extremely low to extremely high). Interrater reliability was acceptable. Ratings were standardized so tasks have an average difficulty of 5.00 and a standard deviation of 1.00. Any task with a TD rating of 6.00 or above is considered to be difficult to learn.

When used in conjunction with the primary criterion of percent members performing, TD ratings can provide insight into first-enlistment personnel training requirements. Such insights may suggest a need for lengthening or shortening portions of instruction supporting entry-level jobs.

## **SPECIALTY JOBS** (Career Ladder Structure)

A USAF Occupational Analysis begins with an examination of the career ladder structure. The structure of jobs within the Imagery Systems Maintenance career ladder was examined on the basis of similarity of tasks performed and the percent of time spent ratings provided by job incumbents, independent of other specialty background factors.

Each individual in the sample performs a set of tasks called a *Job*. For the purpose of organizing individual jobs into similar units of work, an automated job clustering program is used. This hierarchical grouping program is a basic part of the Comprehensive Occupational Data Analysis Program system for job analysis. Each individual job description (all the tasks performed by that individual and the relative amount of time spent on those tasks) in the sample is compared to every other job description in terms of tasks performed and the relative amount of time spent on each task in the JI. The automated system is designed to locate the two job descriptions with the most similar tasks and percent time ratings, and combine them to form a composite job description. In successive stages, new members are added to initial groups, or new groups are formed based on the similarity of tasks performed and similar time ratings in the individual job descriptions.

The analysis procedure described above identified two jobs within the survey sample. The division of jobs performed by AFSC 2E5X1 personnel is illustrated in Figure 1, and a listing of those jobs is provided below. The stage (STG) number shown beside each title is a reference to computer-printed information; the number of personnel in each group or stage (N) is also shown.

### **I. IMAGERY SYSTEMS MAINTENANCE TECHNICIAN (STG011, N=59)**

#### **A. Photographic and Printer System Installation and Maintenance (STG016, N=15)**



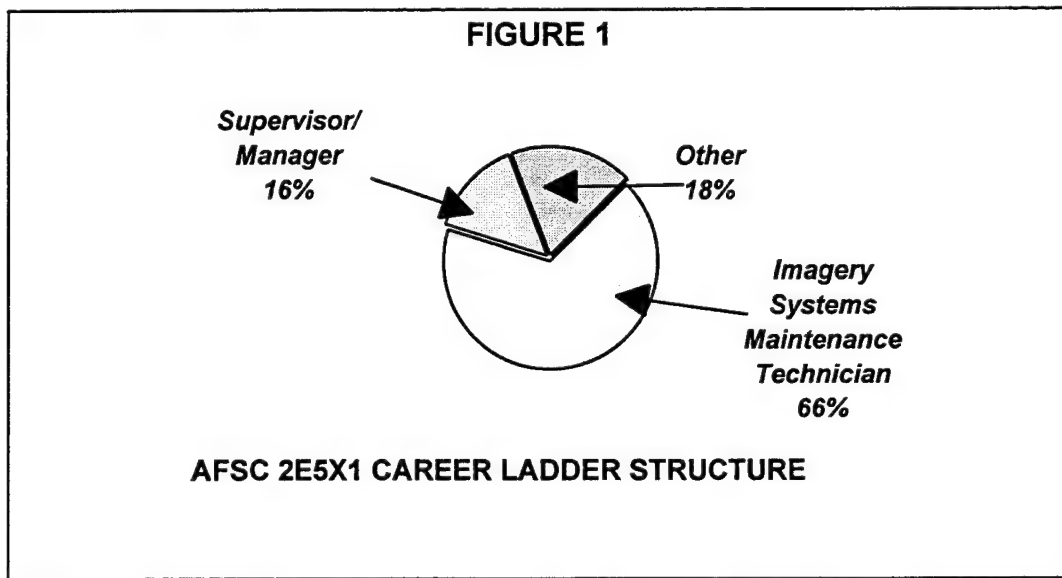
B. Camera and Information System Maintenance (STG014, N= 44)

II. SUPERVISOR/MANAGER CLUSTER (STG015, N=14)

A. Supervisor (STG019, N=9)

B. Manager (STG024, N=5)

The respondents forming these clusters account for 82 percent of the survey sample. The remaining 18 percent were performing tasks that did not group with any of the defined jobs. Some examples of job titles cited by respondents who did not group include Facility Superintendent, Chief Maintenance Quality Control, and Light Table Maintenance Journeyman.



Group Descriptions

The following paragraphs contain brief descriptions of the jobs identified through the career ladder structure analysis. Table 3 presents the relative time spent on duties by members of each cluster. Selected background data for these cluster are provided in Table 4. Representative tasks performed by job incumbents are listed in Appendix A.

I. IMAGERY SYSTEMS MAINTENANCE TECHNICIAN CLUSTER (STG011 N=59). The airmen forming this cluster are responsible for the core work of the career ladder. Sixty-six percent of career ladder personnel surveyed work in this cluster and are responsible for maintaining a wide range of imagery systems equipment such as: processors, projectors, printers, still cameras, and audiovisual and multimedia sound equipment.

TABLE 3

## RELATIVE PERCENT TIME SPENT ON DUTIES BY SPECIALTY JOBS

DUTIES		Imagery Systems Maintenance Technician (STG011) (N=59)	Supervisor/ Manager (STG015) (N=14)
A	ORGANIZING AND PLANNING	5	20
B	DIRECTING AND IMPLEMENTING	4	18
C	INSPECTING AND EVALUATING	2	16
D	TRAINING	2	8
E	PERFORMING GENERAL ADMINISTRATIVE OR SUPPLY ACTIVITIES	8	10
F	PERFORMING GENERAL IMAGERY SYSTEMS MAINTENANCE	6	3
G	INSTALLING AND MAINTAINING PHOTOGRAPHIC PROCESSING EQUIPMENT	16	6
H	INSTALLING AND MAINTAINING PHOTOGRAPHIC SUPPORT EQUIPMENT	18	7
I	MAINTAINING PRINTER SYSTEMS	8	4
J	MAINTAINING STILL CAMERA SYSTEMS	12	4
K	INSTALLING MOTION PICTURE CAMERAS	1	1
L	MAINTAINING GENERAL CAMERA EQUIPMENT	3	1
M	MAINTAINING AUDIOVISUAL AND MULTIMEDIA SOUND EQUIPMENT	11	2
N	MAINTAINING MOBILE INTELLIGENCE PROCESSING EXPLOITATION SYSTEM (MIPES)	*	1
O	MAINTAINING GRAPHICS EQUIPMENT	5	0

\* Denotes less than 1 percent

NOTE: Columns may not add exactly to 100 percent due to rounding

TABLE 4

## SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

	Imagery Systems Maintenance Technician	Supervisor /Manager
NUMBER IN GROUP	59	14
PERCENT OF SAMPLE	66%	16%
PERCENT IN CONUS	64%	64%
DAFSC DISTRIBUTION:		
2E531	10%	0%
2E551	46%	0%
2E571	44%	93%
PAYGRADE DISTRIBUTION		
E-1 to E-3	5%	0%
E-4	39%	0%
E-5	41%	7%
E-6	10%	50%
E-7	5%	36%
E-8	0%	7%
AVERAGE MONTHS IN CAREER FIELD	111	189
AVERAGE MONTHS IN SERVICE	117	209
PERCENT IN FIRST ENLISTMENT (1-48 MOS TAFMS)	17%	0%
PERCENT SUPERVISING	17%	86%
AVERAGE NUMBER OF TASKS PERFORMED	177	127

The job is highly technical, with 80 percent of the relative job time devoted to the performance of technical and general maintenance activities. The duties with high percent time spent are listed in the chart below.

IMAGERY SYSTEMS MAINTENANCE TECHNICIAN CLUSTER (N=59)		Average Percent Time Spent by All Members
<i>Duty</i>		
H.	Installing and Maintaining Photographic Support Equipment	18%
G.	Installing and Maintaining Photographic Processing Equipment	17%
J.	Maintaining Still Camera Systems	12%
M.	Maintaining Audiovisual and Multimedia Sound Equipment	11%

Personnel in this cluster perform an average of 177 tasks. Representative tasks performed include:

- troubleshoot processor or mini-lab electrical or electronic systems
- perform PMIs on processors or mini-labs
- troubleshoot mini-lab printer system components
- perform corrosion control on imagery systems equipment
- perform operational checks on video cassette recorders
- perform operational checks on studio lighting equipment
- perform PMIs on overhead projectors

Within this cluster, two distinct jobs were identified and warrant discussion. These were (A) the Photographic and Printer System Installation and Maintenance Job; and (B) the Camera and Information System Maintenance Job. Duty differences between these two jobs can be seen in Table 5. Task differences are shown in Table 6.

A. Photographic and Printer System Installation and Maintenance Job (STG016, N=15). Personnel in this job perform an average of number of 146 tasks. They spend more of their time installing and maintaining photographic processing equipment, photographic support equipment, and printer systems.

TABLE 5

**DUTY DISCRIMINATION BETWEEN PHOTOGRAPHIC AND  
PRINTER SYSTEM INSTALLATION AND MAINTENANCE  
AND CAMERA AND INFORMATION SYSTEM MAINTENANCE JOBS**

<u><b>DUTIES</b></u>	<u><b>RELATIVE PERCENT TIME SPENT ON DUTIES</b></u>	
	<i>Photographic and Printer System Installation and Maintenance (STG016)</i>	<i>Camera and Information System Maintenance (STG014)</i>
<i>G Installing and Maintaining Photographic Processing Equipment</i>	24	13
<i>H Installing and Maintaining Photographic Support Equipment</i>	29	14
<i>I Maintaining Printer Systems</i>	15	5
<i>J Maintaining Still Camera Systems</i>	3	15
<i>L Maintaining General Camera Equipment</i>	1	4
<i>M Maintaining Audiovisual and Multimedia Sound Equipment</i>	1	14
<i>O Maintaining Graphics Equipment</i>	*	7

\* Denotes less than 1 percent

TABLE 6

**TASK DISCRIMINATION BETWEEN PHOTOGRAPHIC AND  
PRINTER SYSTEM INSTALLATION AND MAINTENANCE AND  
CAMERA AND INFORMATION SYSTEM MAINTENANCE JOBS**

TASK NO.	TASK STATEMENT	Percent Members Performing Tasks	
		<i>Photographic and Printer System Installation and Maintenance (STG016)</i>	<i>Camera and Information System Maintenance (STG014)</i>
I307	Perform PMIs on continuous contact printers	87	5
I330	Troubleshoot continuous contact printer electronic systems	87	5
I331	Troubleshoot continuous contact printer mechanical systems	80	5
I303	Perform operational checks on continuous contact printers	87	11
I296	Adjust continuous contact printers	80	9
I320	Remove or install continuous contact printer mechanical systems	80	9
I319	Remove or install continuous contact printer electronic components	80	9
I299	Calibrate continuous contact printers	73	5
J390	Troubleshoot small-format camera body components	13	82
J358	Perform PMIs on medium-format cameras	13	82
J351	Perform operational checks on medium-format cameras	7	80
M512	Troubleshoot slide projectors	20	93
J353	Perform operational checks on small-format cameras	13	89
J360	Perform PMIs on small-format cameras	7	86

B. Camera and Information System Maintenance Job (STG014, N=44). In this job, AFSC 2E5X1 personnel perform an average of 188 tasks. Members of this job spend more of their time maintaining still camera systems, general camera and graphic equipment, and audiovisual and multimedia sound equipment.

Eighty percent of the personnel in this cluster have the paygrade of either E-4 or E-5. Forty-six percent hold the 5-skill level, and 44 percent hold the 7-skill level (see Table 4).

II. SUPERVISOR/MANAGER CLUSTER (STG015, N=14). The members of this cluster represent 16 percent of the survey sample and are senior-level personnel who primarily supervise personnel or manage functions within the career ladder. Sixty-two percent of their relative job time is spent in duties A, B, C, and D (see chart below). Eighty-six percent indicated they directly supervise other personnel.

MANAGER/SUPERVISOR CLUSTER (N=14)	
<u>Duty</u>	Average Percent Time Spent by All <u>Members</u>
A. Organizing and Planning	20
B. Directing and Implementing	18
C. Inspecting and Evaluating	16
D. Training	8

Personnel in this cluster perform an average of 127 tasks. Representative tasks performed include:

- establish performance standards for subordinates
- evaluate personnel for promotion, demotion, reclassification, or special awards
- write EPRs
- evaluate personnel for compliance with performance standards
- assign personnel to work areas or duty positions
- inspect personnel for compliance with military standards
- supervise military personnel with AFSCs other than AFSC 2E5X1

Eighty-six percent of the personnel in cluster have the paygrade of E-6 or E-7. Ninety-three percent hold the 7-skill level. As mentioned earlier, there were two jobs identified in this cluster: Supervisors and Managers.

A. Supervisors (STG019, N= 9). Members of this job perform a mixture of both supervisory and technical tasks. They perform an average of 160 tasks. Commonly performed tasks include:

- remove or install processor general electrical or electronic components
- maintain job control logs
- evaluate progress of trainees
- develop or establish work methods or procedures
- counsel subordinates concerning personal matters
- plan or schedule work assignments or priorities

B. Managers (STG024, N=5). This job involves the performance of an average of 66 tasks. Eighty-six percent of their job time is spent in administrative duties A through D. Managers do fewer tasks than Supervisors and spend the majority of time doing executive-type duties. This job is likely to be in a larger facility or an interservice facility where there are enough personnel to separate the duty responsibilities. Representative tasks performed by members of this job include:

- supervise military personnel with AFSCs other than AFSC 2E5X1
- establish performance standards for subordinates
- interpret policies, directives, or procedures for subordinates
- write EPRs
- establish performance standards for subordinates
- evaluate personnel for promotions, demotion, reclassification, or special awards
- conduct performance evaluation feedback sessions

Duty differences between these two distinct jobs can be seen in the chart seen below. The task differences are shown on Table 7.



TABLE 7

**TASK DISCRIMINATION BETWEEN  
SUPERVISORS (ST019) AND MANAGERS (ST024)**

<u>TASK STATEMENT</u>		<u>Percent Members Performing Tasks</u>	
		<u>Supervisor</u>	<u>Manager</u>
		<u>ST019</u> <u>(N=9)</u>	<u>ST024</u> <u>(N=5)</u>
G159	Remove or install processor general electrical or electronic components	100	0
E114	Maintain job control logs	100	0
F132	Remove or install general electrical hardware, such as switches or plugs	89	0
G145	Connect or disconnect processor water-mixing valves.	78	0
G139	Adjust processor water temperature control meters	78	0
E106	Annotate PMI logs, forms, or charts	78	0
G143	Connect or disconnect processor heat-sensing devices	78	0
F136	Troubleshoot electrical motors	78	0
G140	Calibrate processor speed control indicators	78	0
D100	Plan or schedule training, such as OJT or ancillary training	78	0
G156	Remove or install processor dryer system components, other than rollers or roller bearing systems	78	0
D85	Conduct on-the-job training (OJT)	89	0
E115	Maintain maintenance record files or forms	89	0
G141	Calibrate processor temperature control gauges	67	0
B54	Supervise military personnel with AFSCs other than AFSC 2E5X1	22	100
B32	Coordinate installation of power or water supplies with base civil engineer (BCE)	22	80
C74	Indorse enlisted performance reports (EPRs)	33	80
C64	Evaluate job or positions descriptions	56	100
A10	Develop resource protection programs	22	60
A4	Determine or establish publication requirements	44	80
C80	Write recommendations for awards or decorations	67	100

## DUTY DISCRIMINATION BETWEEN SUPERVISORS AND MANAGERS

<i>DUTY TITLES</i>	<i>RELATIVE PERCENT TIME SPENT ON DUTIES</i>	
	<i>Supervisors (STG019)</i>	<i>Managers (STG024)</i>
<i>H Installing and Maintaining Photographic Support Equipment</i>	<i>11</i>	<i>1</i>
<i>G Installing and Maintaining Photographic Processing Equipment</i>	<i>9</i>	<i>1</i>
<i>B Directing and Implementing</i>	<i>14</i>	<i>25</i>
<i>A Organizing and Planning</i>	<i>15</i>	<i>28</i>
<i>C Evaluating and Inspecting</i>	<i>1</i>	<i>4</i>
<i>D Training</i>	<i>9</i>	<i>6</i>

### Comparisons of Specialty Jobs

Utilizing the special job-identifying techniques described at the beginning of this section, two jobs were identified in the career ladder structure analysis. One of the jobs, Imagery Systems Maintenance Technician, was directly involved in performing the full range of duties and responsibilities of Imagery Systems Maintenance. The other job, Supervisor/Manager, was distinct due to the predominance of supervision, management, and training-type tasks performed.

<b>JOB SPECIALTY COMPARISONS BETWEEN CURRENT AND 1991 SURVEYS</b>			
<b>CURRENT SURVEY (N= 89)</b>	<b>PERCENT OF SAMPLE</b>	<b>1992 SURVEY (N=180)</b>	<b>PERCENT OF SAMPLE</b>
Imagery Systems Maintenance Technician	66%	Photographic Support Equipment Maintenance Job	44%
		Audiovisual Equipment Maintenance Job	31%
		Motion Picture Camera Maintenance Job	4%
		Light Table Maintenance Job	3%
Not matched		Instructor Job	3%
Supervisor /Manager	16%	Supervision/Management Cluster	14%

The results of the specialty job analysis were compared to those of the last Imagery Systems Maintenance OSR published in 1992. In both surveys, a large group of Imagery Systems Maintenance personnel were identified as the core job. This core job comprised 82 percent of the 1992 sample, compared to the 66 percent of the 1995 sample.

## ANALYSIS OF DAFSC GROUPS

An analysis of DAFSC groups, in conjunction with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis identifies differences in tasks performed at the various skill levels. This information may then be used to evaluate how well career ladder documents, such as the AFMAN 36-2108 *Specialty Descriptions*, and the Career Field Education and Training Plan (CFETP), reflect what career ladder personnel are actually doing in the field.

The distribution of skill-level groups across the career ladder jobs is displayed in Table 8, while Table 9 offers another perspective by displaying the relative percent time spent on each duty across the skill-level groups.

A typical pattern of progression is noted within the AFSC 2E5X1 career ladder. Personnel at the 3- and 5-skill levels work in the technical jobs of the career ladder and spend most of their time on technical tasks involving the maintenance of imagery systems equipment. As incumbents move up to the 7-skill level, higher percentages work in the Supervision and Management Job, but many personnel still spend some time maintaining or repairing imagery equipment.

### Skill-Level Descriptions

DAFSC 2E531. Representing 14 percent of the survey sample, the 12 airmen in this group perform an average of 127 tasks. Personnel in this group spend most of their job time installing and maintaining photographic support and processing equipment, audiovisual and multimedia sound equipment, still cameras, and printer systems (see Table 9).

As shown in Table 8, 75 percent of the 3-skill level personnel were identified in the core Imagery Systems Maintenance Technician Cluster. The other 25 percent (3 persons) did not group into any of the jobs identified.

Fifty-four percent of the time spent by the 3-skill level group are in technical duties H (Installing and Maintaining Photographic Support Equipment), G (Installing and Maintaining Photographic Processing Equipment), and M (Maintaining Audiovisual and Multimedia Sound Equipment) (see Table 9). Representative tasks performed by 3-skill level incumbents are listed in Table 10.

**TABLE 8**  
**DISTRIBUTION OF DAFSC GROUP MEMBERS ACROSS SPECIALTY JOBS**

<b>SPECIALTY JOBS</b>	<b>DAFSC 2E531 (N=12)</b>	<b>DAFSC 2E551 (N=58)</b>	<b>DAFSC 2E571 (N=18)</b>
I. Imagery Systems Maintenance Technician	75%	75%	33%
II. Supervisor/ Manager	0%	5%	56%
III. Other	25%	20%	11%

TABLE 9

## RELATIVE PERCENT TIME SPENT ON DUTIES BY DAFSC GROUPS

DUTIES	DAFSC 2E531 (N=12)	DAFSC 2E551 (N=58)	DAFSC 2E571 (N=18)
A ORGANIZING AND PLANNING	3	8	14
B DIRECTING AND IMPLEMENTING	2	7	13
C INSPECTING AND EVALUATING	1	5	10
D TRAINING	1	2	6
E PERFORMING GENERAL ADMINISTRATIVE OR SUPPLY ACTIVITIES	8	8	9
F PERFORMING GENERAL IMAGERY SYSTEMS MAINTENANCE	8	5	4
G INSTALLING AND MAINTAINING PHOTOGRAPHIC PROCESSING EQUIPMENT	19	12	8
H INSTALLING AND MAINTAINING PHOTOGRAPHIC SUPPORT EQUIPMENT	25	16	12
I MAINTAINING PRINTER SYSTEMS	9	6	6
J MAINTAINING STILL CAMERA SYSTEMS	9	10	6
K INSTALLING MOTION PICTURE CAMERAS	*	1	1
L MAINTAINING GENERAL CAMERA EQUIPMENT	3	3	2
M MAINTAINING AUDIOVISUAL AND MULTIMEDIA SOUND EQUIPMENT	10	11	7
N MAINTAINING MOBILE INTELLIGENCE PROCESSING EXPLOITATION SYSTEM (MIPES)	*	*	*
O MAINTAINING GRAPHICS EQUIPMENT	1	4	3

\* Denotes less than .5 percent

NOTE: Columns may not add exactly to 100 percent due to rounding

**TABLE 10**  
**REPRESENTATIVE TASKS PERFORMED BY 2E531 PERSONNEL**

<b>TASK NUMBER</b>	<b>TASK STATEMENT 2E531</b>	<b>PERCENT MEMBERS PERFORMING (N=12)</b>
G150	Perform PMIs on processors or mini-labs	100
H201	Perform operational checks on densitometers	83
G171	Troubleshoot processor or mini-lab electrical or electronic systems	83
F133	Remove or install power cords	83
F132	Remove or install general electrical hardware, such as switches or plugs	83
E111	Research technical orders or supply catalogs to locate or identify part or stock numbers	83
M511	Troubleshoot overhead projectors	75
M472	Adjust overhead projectors	75
G170	Troubleshoot processor or mini-lab drive systems	75
G164	Remove or install processors	75
G162	Remove or install processor rollers or roller bearing system components	75
G159	Remove or install processor general electrical or electronic components	75
F130	Perform corrosion control on imagery systems equipment	75
F128	Pack or unpack imagery systems equipment	75
F127	Measure and cut copper, stainless steel, or PVC tubing	75
E110	Inventory equipment, tools, or supplies	75
M512	Troubleshoot slide projectors	67
M502	Remove or install overhead projector components	67
M494	Perform PMIs on slide projectors	67
M473	Adjust slide projectors	67
I311	Remove or install black and white projection printer mechanical components	67
H232	Perform PMIs on light tables	67
H213	Perform operational checks on silver recovery units	67
H208	Perform operational checks on light tables	67
H190	Calibrate densitometers	67
G169	Troubleshoot processor or mini-lab chemical replenishing systems	67
G155	Remove or install processor drive system components	67
G149	Perform operational checks on processors or mini-labs	67
G146	Connect or disconnect processors to or from external electrical power	67
G138	Adjust processor drive system components	67
F136	Troubleshoot electrical motors	67
F123	Cement polyvinyl-chloride (PVC) tubing	67
E116	Maintain technical order (TO) or commercial publication files	67
E106	Annotate PMI logs, forms, or charts	67

\* Average Number of Tasks Performed

DAFSC 2E551. The 58 airmen in the 5-skill level group represent 66 percent of the survey sample. They perform an average of 151 tasks. As with the 3-skill level personnel, 75 percent of the 5-skill level personnel are working in the Imagery Systems Maintenance Technician Cluster.

Also, like the DAFSC 2E531 personnel, this group of 5-skill level airmen spend more time in the technical duties of H (Installing and Maintaining Photographic Support Equipment), G (Installing and Maintaining Photographic Processing Equipment), and M (Maintaining Audiovisual and Multimedia Sound Equipment). The 5-skill level individual averages only 37 percent of the time spent on these duties in comparison to the 54 percent time spent by 3-skill level personnel.

The 5-skill level group is responsible for a wide range of duties, primarily in administrative and technical. Table 9 lists the relative percent time spent on these duties. Representative tasks performed by 5-skill level incumbents are listed in Table 11. The tasks that differentiate 5-skill level personnel from their 3-skill level counterparts are listed in Table 12.

DAFSC 2E571. The 18 airmen in the 7-skill level group represent 20 percent of the survey sample. Unlike their junior counterparts at the 3- and 5-skill levels, higher percentages of these personnel are working in the Supervisory and Management Cluster (56 percent vs. 0 and 5 percent, respectively). Forty-three percent of their time spent is on supervisory duties A (Organizing and Planning), B (Directing and Implementing), C (Inspecting and Evaluating), and D (Training), with 9 percent time spent on administrative type duties. Seven-skill level personnel tend to hold both technical and supervisory jobs (see Table 9).

Thirty-three percent of 7-skill level personnel are still working in the core Imagery Systems Maintenance Cluster (see Table 8). They perform an average of 143 tasks. Forty-eight percent of their time spent is on technical duties, such as installing and maintaining photographic support and processing equipment. Table 13 lists the most time consuming tasks performed by 7-skill level personnel. Table 14 shows those tasks which best differentiate the 5- and 7-skill levels. As expected, the key difference is a much greater emphasis on supervisory functions at the 7-skill level.

### Summary

Progression in this career ladder follows a regular pattern of highly technical job focus at the lower skill levels broadening into supervision at the 7-skill level. Emphasis is seen in performing primarily the core job of imagery systems maintenance at the 3- and 5-skill levels, with some broadening into support areas at the 5-skill level. Craftsmen at the 7-skill level are beginning to shift to supervision tasks, but a good deal of their job time is still spent in the technical arena. The high numbers of tasks performed in common by all of the skill level groups indicates a very homogeneous career ladder.

TABLE 11

## REPRESENTATIVE TASKS PERFORMED BY DAFSC 2E551 PERSONNEL

TASK NUMBER	TASK STATEMENT	PERCENT MEMBERS PERFORMING (N=58)
F132	Remove or install general electrical hardware, such as switches or plugs	84
E110	Inventory equipment, tools, or supplies	84
E111	Research technical orders or supply catalogs to locate or identify part or stock numbers	83
E106	Annotate PMI logs, forms, or charts	83
F133	Remove or install power cords	81
F128	Pack or unpack imagery systems equipment	81
F130	Perform corrosion control on imagery systems equipment	79
E114	Maintain job control logs	78
G150	Perform PMIs on processors or mini-labs	76
A16	Participate in general meeting, such as staff meetings, briefings, conferences, and workshops, other than conducting	73
H239	Perform PMIs on slide mounters	72
G173	Troubleshoot processor or mini-lab temperature control systems	72
G171	Troubleshoot processor or mini-lab electrical or electronic systems	72
G170	Troubleshoot processor or mini-lab drive systems	72
G149	Perform operational checks on processors or mini-labs	72
F129	Perform acceptance checks of imagery systems equipment	72
G169	Troubleshoot processor or mini-lab chemical replenishing systems	71
A14	Establish preventive maintenance inspection (PMI) programs	71
G174	Troubleshoot processor or mini-lab water systems	71
E116	Maintain technical order (TO) or commercial publication files	69
G159	Remove or install processor general electrical or electronic components	69
A5	Determine or establish work priorities	67
F136	Troubleshoot electrical motors	67
G155	Remove or install processor drive system components	67
G148	Level processors or components	67
G172	Troubleshoot processor or mini-lab recirculation systems	67

\* Average number of tasks performed



TABLE 12

**TASKS WHICH BEST DIFFERENTIATE BETWEEN  
DAFSCs 2E531 AND 2E551 PERSONNEL  
(PERCENT MEMBERS PERFORMING)**

<b>TASK NUMBER</b>	<b>TASK STATEMENT</b>	<b>2E531 N=12</b>	<b>2E551 N=58</b>	<b>Difference</b>
H259	Remove or install light table mechanical components	58	17	41
H182	Adjust light tables	58	17	41
H284	Troubleshoot light table electronic systems	58	19	39
H232	Perform PMIs on light tables	67	28	39
H186	Adjust silver recovery units	58	21	38
H213	Perform operational checks on silver recovery units	67	31	36
H208	Perform operational checks on light tables	67	33	34
H193	Calibrate light tables	42	9	33
H237	Perform PMIs on silver recovery units	58	26	32
H190	Calibrate densitometers	67	38	29
H201	Perform operational checks on densitometers	83	55	28
H192	Calibrate film titlers	33	5	28
H258	Remove or install light table electronic components	50	22	28
I319	Remove or install continuous contact printer electronic components	42	16	26
H285	Troubleshoot light table mechanical systems	42	16	26
F127	Measure and cut copper, stainless steel, or PVC tubing	75	50	25
H189	Adjust viewing tables	42	17	24
C65	Evaluate maintenance or utilization of equipment, supplies, materials, or workspace	17	45	-28
H242	Perform PMIs on studio lighting equipment	33	62	-29
E108	Draft or write justification letters for supplies or equipment	33	62	-29
A14	Establish preventive maintenance inspection (PMI) programs	41	71	-29
H218	Perform operational checks on studio lighting equipment	33	64	-30
H188	Adjust slide mounters	33	64	-30
E115	Maintain maintenance record files or forms	33	64	-30
M490	Perform PMIs on camcorders	17	48	-32
J350	Perform operational checks on digital camera systems	17	48	-32
H219	Perform operational checks on timers	17	48	-32
M516	Troubleshoot video projection systems	00	33	-33
E113	Maintain computerized equipment records	25	59	-34
M498	Perform PMIs on video projection systems	00	36	-36
E112	Maintain administrative files	8	47	-38
G167	Troubleshoot processor or mini-lab aeration systems	8	47	-38
A19	Plan or schedule work assignments or priorities subordinates	8	50	-42
E114	Maintain job control logs	33	78	-44

**TABLE 13**  
**REPRESENTATIVE TASKS PERFORMED**  
**BY DAFSC 2E571 PERSONNEL**

<b>TASKS</b>	<b>TASK STATEMENT</b>	<b>PERCENT MEMBERS PERFORMING (N=18)</b>
A16	Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	94
A8	Develop or establish work methods or procedures	89
C78	Write EPRs	89
A5	Determine or establish work priorities	83
A14	Establish preventive maintenance inspection (PMI) programs	83
B26	Adjust daily maintenance plans to meet operational commitments	83
B41	Implement preventive maintenance inspection (PMI) programs	83
E108	Draft or write justification letters for supplies or equipment	83
E110	Inventory equipment, tools, or supplies	83
A1	Assign personnel to work areas or duty positions	78
A19	Plan or schedule work assignments or priorities	78
B33	Counsel subordinates concerning personal matters	78
A4	Determine or establish publication requirements	72
A13	Establish performance standards for subordinates	72
A15	Establish work schedules	72
B42	Implement safety or security programs	72
E115	Maintain maintenance record files or forms	72
E122	Review supply system report forms such as D04 (Daily Document Register) or D18 (Priority Monitor Report)	72
F129	Perform acceptance checks of imagery systems equipment	72
F132	Remove or install general electrical hardware, such as switches or plugs	72
C80	Write recommendations for awards or decorations	67
C57	Conduct performance evaluation feedback sessions	67

TABLE 14

**TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSCs 2E551 AND 2E571 PERSONNEL  
(PERCENT MEMBERS PERFORMING)**

<b>TASK NUMBER</b>	<b>TASK STATEMENT</b>	<b>2E551 (N=58)</b>	<b>2E571 (N=18)</b>	<b>DIFFERENCE</b>
G174	Troubleshoot processor or mini lab water systems	71	17	54
G173	Troubleshoot processor or mini-lab temperature control systems	72	22	50
H218	Perform operational checks on studio lighting equipment	64	17	47
H242	Perform PMIs on studio lighting equipment	62	17	45
G171	Troubleshoot processor or mini-lab electrical or electronic systems	72	28	45
G170	Troubleshoot processor or mini-lab drive systems	72	28	45
G169	Troubleshoot processor or mini-lab chemical replenishing systems	71	28	43
G166	Troubleshoot mini-lab printer systems components	59	17	42
E116	Maintain technical order (TO) or commercial publication files	69	28	41
G172	Troubleshoot processor or mini-lab recirculation systems	67	28	39
G167	Troubleshoot processor or mini-lab aeration systems	47	11	35
G153	Remove or install processing sink components	47	11	35
J359	Perform PMIs on passport cameras	52	17	35
H205	Perform operational checks on film drying cabinets	45	11	34
M478	Perform operational checks on camcorders	50	17	33
G151	Process film	43	11	32
M490	Perform PMIs on camcorders	48	17	32
L452	Perform PMIs on flash units or strobes	53	22	31
J353	Perform operational checks on small-format cameras	59	28	31
C66	Evaluate personnel for compliance with performance standards	24	61	-37
C57	Conduct performance evaluation feedback sessions	29	67	-37
B52	Supervise Imagery Systems Maintenance Journeymen (AFSC 2E551)	12	50	-38
A23	Schedule personnel for temporary duty (TDY) assignments, leaves, or passes	17	56	-38
C72	Evaluate work schedules	17	56	-39
B35	Direct maintenance of administrative files	22	61	-38
D97	Evaluate progress of trainees	21	61	-40
C80	Write recommendations for awards or decorations	24	67	-43
C78	Write EPRs	28	72	-45
A13	Establish performance standards for subordinates	28	72	-45
A2	Assign sponsors for newly assigned personnel	12	61	-49
B30	Conduct supervisory orientations of newly assigned personnel	17	62	-49
B33	Counsel subordinates concerning personal matters	28	78	-50
A1	Assign personnel to work areas or duty positions	26	78	-52

## ANALYSIS OF AFMAN 36-2108 *SPECIALTY DESCRIPTION*

Survey data were compared to the AFMAN 36-2108 *Specialty Description* for the Imagery Systems Maintenance career ladder, dated 31 October 1994. The overall specialty description for the 3-, 5-, and 7-skill levels accurately describes the technical and supervisory nature of jobs at the various levels. The description also reflects the primary tasks and responsibilities discussed in the **SPECIALTY JOBS** section of this report.

### TRAINING ANALYSIS

Occupational surveys provide information that can be useful in the development and revision of relevant training programs. Primary factors used in this study to evaluate entry-level training include jobs performed by personnel during their first enlistment (1-48 months TAFMS) and relative TD ratings. As mentioned earlier, TE ratings are not available for this specialty due to the lack of agreement among career ladder personnel as to what tasks to train.

#### Task Difficulty (TD) Data

TD data can help training development personnel decide which tasks to train in entry-level training. TD ratings, based on the judgment of senior career ladder NCOs at operational units, provide a rank-ordering of tasks by the relative difficulty of those tasks. When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can be made to determine if training adjustments are necessary. For example, tasks receiving high TD ratings, accompanied by moderate to high percentages of first-enlistment personnel performing, may warrant resident training. Those tasks receiving high TD ratings, but low percentages performing, may be more appropriately planned for OJT programs. Low TD ratings may highlight tasks best omitted from training for first-enlistment personnel. These decisions must be weighed against percentages of personnel performing the tasks, command concerns, and criticality of the tasks.

Table 15 lists the tasks having the highest TD ratings. The percentages of first enlistment, and 3-, 5-, and 7-skill level personnel performing are also included for each task. The majority of tasks with high difficulty are not performed by high percentages of any group. As illustrated by the tasks listed, most apply to the routine maintenance of graphics equipment under Duty O. Examples of tasks with high TD ratings deal with such areas as: troubleshooting laser printers, graphics components, film recorders, and Central Processing Units.

TABLE 15

## TASKS RATED HIGH IN DIFFICULTY

TASK NUMBER	TASK TITLE	TSK DIF	PERCENT MEMBERS PERFORMING				
			1ST ENL	3-LVL	5-LVL	7-LVL	
D90	Develop career development courses (CDCs)	7.59	7	8	3	0	
O626	Troubleshoot laser printers	7.52	13	8	14	17	
O608	Remove or install graphics copier optical components	7.43	13	0	9	0	
O629	Troubleshoot monitors	7.37	20	8	16	11	
O624	Troubleshoot graphics copiers	7.31	7	0	16	6	
O606	Remove or install graphics copier electronic components	7.29	13	0	10	0	
O622	Troubleshoot film recorders	7.28	7	8	16	6	
O620	Troubleshoot CPUs	7.26	13	8	19	17	
O612	Remove or install laser printer optical components	7.24	13	0	10	6	
O623	Troubleshoot flatbed scanners	7.23	7	0	16	6	
O605	Remove or install flatbed scanner optical components	7.19	7	0	7	0	
O621	Troubleshoot external drives	7.12	13	8	14	6	
O631	Troubleshoot thermal printers	7.12	7	17	16	11	
O602	Remove or install film recorder optical components	7.11	7	0	10	6	
O630	Troubleshoot plotters	7.05	7	0	10	6	
O610	Remove or install laser printer electronic components	7.03	20	8	14	6	
J383	Troubleshoot digital camera systems or components	7.00	13	17	28	17	
O603	Remove or install flatbed scanner electronic components	6.97	7	8	10	0	
O600	Remove or install film recorder electronic components	6.90	7	8	10	6	
O627	Troubleshoot letter quality or dot matrix printers	6.89	13	0	14	11	
O616	Remove or install plotter electronic components	6.87	7	0	9	6	
O607	Remove or install graphics copier mechanical components	6.87	7	0	10	0	
O618	Remove or install thermal printer electronic components	6.80	7	8	14	6	
J334	Adjust between-the-lens shutters	6.80	27	25	19	6	
M516	Troubleshoot video projection systems	6.79	20	0	33	17	
M514	Troubleshoot VCRs	6.77	40	42	50	28	
M475	Align video projection systems	6.77	20	8	31	22	
O628	Troubleshoot lettering or spacing mechanisms	6.75	7	0	7	0	
K426	Remove or install motion picture camera shutter assemblies or components	6.74	0	0	3	6	
J365	Remove or install digital camera systems or components	6.73	7	8	16	22	
O604	Remove or install flatbed scanner mechanical components	6.71	7	8	9	0	
A12	Draft budget requirements	6.71	13	8	34	50	
O615	Remove or install lettering equipment optical components	6.76	7	0	5	0	

\* TD MEAN = 5.00; SD=1.00

### First-Enlistment Personnel

In this study, there are 15 members in their first-enlistment (1-48 months TAFMS), representing 17 percent of the survey sample. These personnel work in the Imagery Systems Maintenance Technician Cluster jobs. The job performed by these personnel is highly technical in nature, with approximately 93 percent of their relative duty time spent on tasks pertaining to the maintenance of various Imagery Systems (see Table 16). Most involve the routine maintenance of mini-labs, mini-lab electrical or electronic components, processors, and projectors. Table 17 displays commonly performed tasks for first-enlistment personnel.

### Equipment Usage

Personnel in the Imagery System Maintenance Technician Cluster utilize and maintain a large and diverse number of systems and equipment in the performance of their jobs. It is important to identify this equipment, and more important to determine which of these items should be trained. Equipment utilization data are presented for first-enlistment personnel in Table 18. A full computer listing of all equipment items and associated percent members utilizing is supplied in computer extracts to this OSR. These extracts are supplied to all training and functional managers.

### Course Training Standard (CTS) 2E531

A comprehensive review of the CTS, AFSC 2E531 in Part II, Section D of the CFETP, dated October 1995, was made by comparing survey data to CTS elements. The Mission Area Manager for the AFSC 2E5X1 from Scott AFB matched JI tasks to appropriate CTS sections and subsections. A complete computer listing displaying the percent members performing tasks and TD rating for each task, along with the CTS matching, has been forwarded to the technical school for their review of the training documents. A complete computer listing for equipment items and forms has also been forwarded to the school.

Typically, CTS sections and subsections matched to tasks which have sufficiently high TD ratings, and are performed by at least 30 percent of personnel in appropriate experience or skill-level groups (such as first-enlistment (1-48 months TAFMS) and 5- and 7-skill level groups), are considered to be supported and should be considered for inclusion in the CTS. Likewise, paragraphs having tasks with less than 30 percent performing across all of the criterion groups should be considered for deletion from the CTS.

CTS items not supported are displayed in Table 19. Since AFSC 2E5X1 personnel maintain many different systems and pieces of equipment (both fixed and mobile), equipment data presented earlier should be helpful in any review performed on these unsupported CTS items.

TABLE 16

**RELATIVE PERCENT OF TIME SPENT ACROSS DUTIES BY  
FIRST-ENLISTMENT AFSC 2E5X1 PERSONNEL**

DUTIES		PERCENT TIME SPENT (N=15)
A	ORGANIZING AND PLANNING	3
B	DIRECTING AND IMPLEMENTING	2
C	INSPECTING AND EVALUATING	1
D	TRAINING	1
E	PERFORMING GENERAL ADMINISTRATIVE OR SUPPLY ACTIVITIES	7
F	PERFORMING GENERAL IMAGERY SYSTEMS MAINTENANCE	7
G	INSTALLING AND MAINTAINING PHOTOGRAPHIC PROCESSING EQUIPMENT	17
H	INSTALLING AND MAINTAINING PHOTOGRAPHIC SUPPORT EQUIPMENT	20
I	MAINTAINING PRINTER SYSTEMS	6
J	MAINTAINING STILL CAMERA SYSTEMS	10
K	INSTALLING MOTION PICTURE CAMERAS	1
L	MAINTAINING GENERAL CAMERA EQUIPMENT	4
M	MAINTAINING AUDIOVISUAL AND MULTIMEDIA SOUND EQUIPMENT	18
N	MAINTAINING MOBILE INTELLIGENCE PROCESSING EXPLOITATION SYSTEM (MIPES)	*
O	MAINTAINING GRAPHICS EQUIPMENT	3

\* Denotes less than 1 percent

TABLE 17

**MOST COMMONLY PERFORMED TASKS FOR  
FIRST-ENLISTMENT AFSC 2E5X1 PERSONNEL**

TASK STATEMENT		PERCENT MEMBERS PERFORMING (N=15)
F133	Remove or install power cords	87
G150	Perform PMIs on processors or mini-labs	87
E111	Research technical orders or supply catalogs to locate or identify parts or stock numbers	80
F128	Pack or unpack imagery systems equipment	80
F132	Remove or install general electrical hardware, such as switches or plugs	80
M472	Adjust overhead projectors	80
E110	Inventory equipment, tools, or supplies	73
E116	Maintain technical order (TO) or commercial publication files	73
F130	Perform corrosion control on imagery systems equipment	73
G162	Remove or install processor rollers or roller bearing system components	73
G171	Troubleshoot processor or mini-lab electrical or electronic systems	73
M511	Troubleshoot overhead projectors	73
E106	Annotate PMI logs, forms, or charts	67
G159	Remove or install processor general electrical or electronic components	67
G169	Troubleshoot processor or mini-lab chemical replenishing systems	67
G170	Troubleshoot processor or mini-lab drive systems	67
H201	Perform operational checks on densitometers	67
M473	Adjust slide projectors	67
M502	Remove or install overhead projector components	67
M512	Troubleshoot slide projectors	67
F129	Perform acceptance checks of imagery systems equipment	60
F136	Troubleshoot electrical motors	60
G146	Connect or disconnect processors to or from external electrical power	60
G149	Perform operational checks on processors or mini-labs	60
G155	Remove or install processor drive system components	60
M483	Perform operational checks on overhead projectors	60
M484	Perform operational checks on slide projectors	60
M494	Perform PMIs on slide projectors	60
M503	Remove or install slide projector components	60
G166	Troubleshoot mini-lab printer systems components	53
H214	Perform operational checks on slide mounters	53
H239	Perform PMIs on slide mounters	53



**TABLE 18**

**IMAGERY SYSTEMS MAINTENANCE EQUIPMENT OPERATED  
AND/OR MAINTAINED BY 30 PERCENT OR MORE  
FIRST-ENLISTMENT AFSC 2E5X1 PERSONNEL**

	<b><u>1ST ENL (N=15)</u></b>
<b><u>STILL CAMERAS</u></b>	
Bronica ETRS/ETRSI	73
Calumet Studio 4X5	33
Mamyia 645	33
Nikon F-3	73
Nikon F4s	60
Nikon N 8008s	40
Polaroid ID/Passport	67
Polaroid Land	33
<b><u>COPY CAMERAS</u></b>	
Marron Carrel	73
<b><u>PROCESSORS</u></b>	
Noritza C-41 Mini Lab	60
Noritza E-6 Mini Lab	67
Noritza QSS 613U	67
Noritza QSS 1501Z	47
Paper Processor, Ilford	47
Wing-Lynch Color	33
<b><u>PHOTOGRAPHIC PRINTERS MAINTAIN</u></b>	
Durst L-1840	33
<b><u>VISUAL INFO EQUIP MAINTAIN</u></b>	
Camcorders	60
Caramate Slide Projector/Cassette Players	53
Cassette Recorders	53
Dissolve Control Units	40
Ektagaphic/Ektagaphic III Slide Projectors	60
Overhead Projectors	87
Panasonic Video Cameras	33
Panasonic Video monitors	33
Sony TV Monitors	47
Video Cassette Recorders (VCRs)	67
Video Playback Units	40
Video Projection Systems	47
Densitometers, Automatic	53
Densitometers, Manual	47
Film Dryers	53

**TABLE 18 (CONTINUED)**

**IMAGERY SYSTEMS MAINTENANCE EQUIPMENT OPERATED  
AND/OR MAINTAINED BY 30 PERCENT OR MORE  
FIRST-ENLISTMENT AFSC 2E5X1 PERSONNEL**

	<b><u>1ST ENL</u></b> <b><u>(N=15)</u></b>
<b><u>PHOTOGRAPHIC SUPPORT EQUIP MAINTAIN</u></b>	
Flash Unit	53
Hydromixers	53
Light Meters	40
Papercutters	47
Print Dryers	40
Silver Recovery Units, Cartridge	33
Silver Recovery Units, Electrolytic	47
Sinks	40
Slide Mounters	47
Studio Backdrops	40
Studio Lamps	53
Tripods	53
<b><u>GRAPHICS EQUIP MAINT</u></b>	
Graphics Imaging Systems	40
Laser Copier, Cannon	33
<b><u>TEST EQUIP USE/OPERATE</u></b>	
Ammeters	40
Digital Voltmeters	67
Multimeters	93
Oscilloscopes	60
Torque Wrenches	33
Transistor Checkers	33
<b><u>SHOP EQUIP USE/OPERATE</u></b>	
Air Compressors	67
Buffers	33
Dremel Moto-tool Kits	73
Grinder, Bench	67
Grinder, Drill	33
Hand Tools, General	87
Hand Tools, Jewelers	87
Portable Power Tools	80
PVC Pipe Threaders	53
Soldering Irons	80
Tap and Die Sets	60
Vices	67

TABLE 19

## CTS ITEMS NOT SUPPORTED BY OSR DATA

CTS REFERENCE/TASK		3-LVL COURSE PROF CODE	PERCENT MEMBERS PERFORMING				TSK DIF
			1ST ENL N=15	5-SKILL LEVEL N=58	7-SKILL LEVEL N=18		
4.3.9.	<b>Lens collimator</b>	--					
	L0448 Collimate camera bodies to lenses		13	5	6		5.88
	L0449 Collimate camera lenses		13	3	6		6.09
7.4.	<b>Perform preventive maintenance on film titler using technical order</b>	--					
	H0230 Perform PMIs on film titlers		7	10	17		3.95
7.5.	<b>Inspect the film titler.</b>	--					
	H0230 Perform PMIs on film titlers		7	10	17		3.95
7.6.	<b>Identify procedures to troubleshoot film titler.</b>	--					
	H0282 Troubleshoot film titlers		7	9	17		4.76
7.8	<b>Identify procedures to align and adjust the film titler.</b>						
	H0181 Adjust film titlers		27	10	22		4.75
	H0192 Calibrate Film Titlers	--	20	5	11		5.36
8.1.3.	<b>Perform an operational check of the continuous wide film contact printer.</b>						
	I0303 Perform operational checks on continuous contact printers	--	13	21	28		5.12
8.1.4.	<b>Inspect the continuous wide film contact printer.</b>						
	I0307 Perform PMI on continuous contact printers	--	13	17	28		4.83

TABLE 19 (CONTINUED)

## CTS ITEMS NOT SUPPORTED BY OSR DATA

CTS REFERENCE/TASK		PERCENT MEMBERS PERFORMING				TSK DIF
		3-LVL COURSE PROF CODE	1ST ENL N=15	5-SKILL LEVEL N=58	7-SKILL LEVEL N=18	
8.1.5.	Identify the procedures for cleaning and lubricating the continuous wide film contact printer. <i>I307 Perform PMI on continuous contact printers</i>	--	13	17	28	4.83
11.6.	Adjust the light table using T.O. <i>H182 Adjust light tables</i> <i>H193 Calibrate light tables</i>	--	27 20	17 19	28 11	4.49 5.09
11.4.5.	Perform preventive maintenance inspections on titlers. <i>H230 Perform PMIs on film titlers</i>	--	7	10	17	3.95
11.4.6.	Isolate titler malfunctions <i>H282 Troubleshoot film titlers</i>	--	7	9	17	4.76
12.1.3.	Perform operational check on automatic contact printers. <i>I304 Perform operational checks on continuous contact printers</i>	--*	13	21	28	5.12

TABLE 19 (CONTINUED)

## CTS ITEMS NOT SUPPORTED BY OSR DATA

PERCENT MEMBERS PERFORMING		3-LVL COURSE PROF CODE	1ST ENL N=15	5-SKILL LEVEL N=58	7-SKILL LEVEL N=18	TSK DIF
CTS REFERENCE/TASK						
12.2.3.	Perform operational check on continuous wide film printers. I304 Perform operational checks on motion picture printers.	X*	0	5	6	5.00
12.2.8.	Remove and replace printer components. I322 Remove or install motion picture printer electronic components I323 Remove or install motion picture printer mechanical components I324 Remove or install motion picture printers	X*	7	5	6	5.87
			7	5	6	5.44
			0	2	0	5.25
15.3.	Perform an operational check of the video monitor using a commercial manual. O583 Perform operational checks on monitors	--	13	24	17	4.23
15.4.	Inspect the video monitor using a commercial manual. O595 Perform PMIs on monitors	--	13	16	17	5.13
16.3.4.	Clean and service monitors. O595 Perform PMIs on monitors	--	13	16	17	5.13

TABLE 19 (CONTINUED)

## CTS ITEMS NOT SUPPORTED BY OSR DATA

		PERCENT MEMBERS PERFORMING				
CTS REFERENCE/TASK		3-LVL COURSE PROF CODE	1ST ENL N=15	5-SKILL LEVEL N=58	7-SKILL LEVEL N=18	TSK DIF
16.3.5.	Perform preventive maintenance inspections of monitor subassemblies. <i>O595 Perform PMIs on monitors</i>	--	13	16	17	5.13
16.5.3.	Perform operational check on programmer/dissolvers <i>M482 Perform operational checks on multimedia control consoles, such as programmers or soundslide synchronizers</i>	--	13	19	17	4.78
16.5.5.	Perform preventive maintenance inspections on programmers/dissolvers <i>M492 Perform PMIs on multimedia control consoles, such as dissolvers or soundslide synchronizers</i>	--	13	17	6	5.03
16.5.6.	Isolate programmers/dissolvers malfunctions. <i>M510 Troubleshoot multimedia control consoles, such as dissolvers or multimedia programmers</i>	--	13	16	6	5.55
19.4.	Clean and service still digital camera <i>M495 Perform PMIs on still video camera systems</i>	--	7	17	28	4.77
19.5.	Inspect still digital camera subsystems <i>M495 Perform PMIs on still video camera systems.</i>	--	7	17	28	4.77

TABLE 19 (CONTINUED)

## CTS ITEMS NOT SUPPORTED BY OSR DATA

CTS REFERENCE/TASK		3-LVL COURSE PROF CODE	PERCENT MEMBERS PERFORMING				TSK DIF
			1ST ENL N=15	5-SKILL LEVEL N=58	7-SKILL LEVEL N=18		
19.6.	Isolate malfunctions associated with still digital camera subsystems	--					
	J383 Troubleshoot digital camera systems or components		13	28	17		7.01
	M513 Troubleshoot still video camera systems		7	17	22		6.05
20.1.	Maintain Mobile Facilities (All CTS reference not supported)**	--	0	3	6		5
75.1.2.	Perform an operational check of the 240 Stereoscope H217 Perform an operational check of the 240 stereoscope	X*K	7	5	11		4.33
75.1.3.	Adjust the 240 Stereoscope H217 Perform an operational check of the 240 stereoscope	X*K	7	7	0		4.65
75.2.2.	Perform an operational check of the 500 Zoom Scope. H220 Perform operational checks on viewers, other than stereoscopes	X*K	0	7	6		3.78
75.1.4.	Calibrate the 240 Stereoscope H196 Calibrate the 240 stereoscope	X*K	7	7	0		6.52
75.2.3.	Adjust the 500 Zoom Scope H244 Perform PMIs on viewers, other than stereoscope	X*K	0	7	0		3.74

\*\*TD MEAN= 5.00; SD=1.00

Table 20 lists examples of tasks which were performed by 30 percent or more of criterion groups, but not matched to any CTS items. Training personnel and SMEs should review these and other unreferenced tasks to determine their appropriateness in being included in the CTS.

### Electronic Principles (EP)

The Electronics Fundamental paragraph of the CTS, and the EPs taught in the basic course can be examined using data obtained from the AFSC 2E5X1 Survey. An extensive list of EP questions were included in the background section of the survey to help identify those principles used by AFSC 2E5X1 personnel in their present job. These EP items were taken from the most recent Electronic Principles Inventory (EPI).

Table 21 displays those EP items which are used by 50 percent or more of AFSC 2E5X1 first-enlistment personnel. Also included are percent members performing for Total Sample, DAFSC 2E531, DAFSC 2E551, and DAFSC 2E571 groups. Since utilization of electronic principles is extensive in the AFSC 2E5X1 career ladder, a special EPI computer extract is supplied to all training and functional managers.

### **ANALYSIS OF MAJOR COMMANDS (MAJCOM)**

Tasks and background data of the eight MAJCOMs with the largest AFSC 2E5X1 populations were compared to determine whether job content varied as a function of command assignment.

Generally, the tasks performed across the commands were similar, with a vast majority of the JI tasks performed in common. The largest percentages of duty time in most commands were committed to the performance of tasks involving general maintenance functions such as: installing and maintaining photographic processing equipment, photographic support equipment, and still cameras.

Differences in tasks performed among the major commands were affected by the special mission activities of the command. AFSPACECOM personnel are an example of this. They maintain the only Motion Picture Cameras (Duty K) for use at shuttle launches. They also maintain the Mobile Intelligence Processing Exploitation System (MIPES) (Duty N). Percentage of time spent on duties by MAJCOM groups is displayed on Table 22.



TABLE 20

**EXAMPLES OF TECHNICAL TASKS PERFORMED BY 30 PERCENT OR MORE 2E5X1  
GROUP MEMBERS BUT NOT REFERENCED TO CTS**

TASKS NOT REFERENCED		PERCENT MEMBERS PERFORMING			
		1ST ENL N=15	DAFSC 2E551 N=58	DAFSC 2E571 N=18	TSK DIF**
F136	Troubleshoot electrical motors	60	67	61	4.68
I293	Adjust black and white projection printers	67	59	44	4.43
L450	Perform operational checks on battery packs	53	50	28	3.57
M472	Adjust overhead projectors	80	52	33	3.55
M479	Perform operational checks on cassette tape	53	31	17	4.39
M483	Perform operational checks on overhead projectors	60	60	50	3.23
M493	Perform PMIs on overhead projectors	53	52	39	3.44
M502	Remove or install overhead projector components	67	47	39	3.62
M511	Troubleshoot overhead projectors	73	60	44	3.44

\*\* TD MEAN = 5.00; SD=1.00

TABLE 21

**2E5X1 ELECTRONIC PRINCIPLES ITEMS  
WITH 50 PERCENT OR MORE PERFORMING**

TASK STATEMENT	TOTAL SAMPLE	IST JOB	IST ENL	DAFSC 2E531	DAFSC 2E551	DAFSC 2E571
V449 Items in circuits you trace logic, schematic/block diagrams - Conductors/fuses/lamps/switches/batteries/resistors (A1-9)	82	100	67	75	81	94
V452 Items in circuits you trace, logic, schematic, or block diagrams - Capacitors (A1-27)	75	100	53	75	74	83
V453 Items in circuits you trace, logic, schematic, or block diagrams - Transformers (A1-35)	78	100	60	75	78	83
V455 Items in circuits you trace, logic, schematic, or block diagrams - dc motors (A2-1)	76	100	53	75	76	83
V465 Items in circuits you trace, logic, schematic, or block diagrams - Diodes (A3-1)	76	100	53	67	76	89
V466 Items in circuits you trace, logic, schematic, or block diagrams - transistors (A3-7)	73	100	53	67	72	83
V467 Items in circuits you trace, logic, schematic, or block diagrams - Integrated circuits IC (A3-13)	71	100	53	58	69	89
V505 Items fault isolate by troubleshooting circuits - Conductors, fuses, lamps, switches, batteries, or resistors (A1-5)	83	100	73	83	84	83
V506 Items fault isolate by troubleshooting circuits - Relays (A1-16)	57	100	67	75	50	72
V508 Items fault isolate by troubleshooting circuits - Capacitors (A1-28)	60	100	67	83	52	72
V509 Items fault isolate by troubleshooting circuits - Transformers (A1-36)	64	50	60	75	60	72
V511 Items fault isolate by troubleshooting circuits - DC motors (A2-2)	73	100	60	83	71	78
V522 Items fault isolate by troubleshooting circuits - Solenoids (A2-34)	72	100	53	75	71	78
V524 Items fault isolate by troubleshooting circuits - Diodes (A3-2)	67	100	60	75	60	89
V525 Items fault isolate by troubleshooting circuits - Transistors (A3-8)	69	100	67	83	62	83
V538 Items fault isolate by troubleshooting circuits - Power Supplies (D1-3)	61	50	53	67	60	61
V586 Items calculate values - AC effective voltage, average voltage, or peak-to-peak voltage (A1-7)	29	50	53	42	29	22
V602 Items use - Metric terms such as mili, kilo, mega (A1-1)	62	100	73	83	55	72

**TABLE 21 (CONTINUED)**  
**2E5X1 ELECTRONIC PRINCIPLES ITEMS**  
**WITH 50 PERCENT OR MORE PERFORMING**

TASK STATEMENT	TOTAL SAMPLE	IST JOB	IST ENL	DAFSC 2E531	DAFSC 2E551	DAFSC 2E571
V603 Items use - Basic DC electrical/electronic terms (A1-2)	81	100	73	83	81	83
V604 Items use - Basic AC electrical/electronic terms (A1-3)	82	100	73	83	81	89
V613 Items use - Crimping tool to repair or make connections (A5-6)	73	100	67	75	71	83
V616 Items use - Multimeter to measure DC voltage values (B1-1)	91	100	100	100	90	94
V617 Items use - Multimeter to measure AC voltage values (B1-2)	88	100	93	92	86	94
V619 Items use - Multimeter to measure DC current values (B1-4)	66	50	67	75	64	72
V622 Items use - Multimeter to measure circuit resistance (B1-7)	79	50	73	75	81	78
V623 Items use - Multimeter to measure component resistance (B1-8)	80	100	93	83	79	83
V650 Items use - Digital voltmeters or multimeters (B4-4)	62	50	60	67	62	61
V831 Items perform ohm checks on - Resistors (A1-14)	81	100	87	92	84	67
V833 Items perform ohm checks on - Capacitors (A1-33)	51	100	73	83	47	44
V851 Items calibrate/adjust - Circuits by using variable resistors (A1-11)	42	50	53	58	41	33
V858 Items solder/desolder - Component connections, such as resistors/capacitors/diodes/transformers, etc. (A5-2)	82	100	87	92	81	83
V859 Items solder/desolder - Printed circuit board connections (A5-3)	72	0	60	67	71	83
V923 Items repair/fabricate - Connector or cables on multiconductor cables (A5-9)	55	100	67	75	57	39
V924 Items repair/fabricate - Connectors or cables on coaxial (A5-10)	60	50	73	58	64	50
V942 Misc. activities perform -Continuity check relays (A1-19)	71	50	67	67	72	72
V943 Misc. activities perform -Measure transformer output voltage (A1-41)	60	50	53	67	59	61

TABLE 22

## PERCENTAGE OF TIME SPENT ON DUTIES BY MAJCOM GROUPS

DUTIES	USAFE N=7	PACAF N=8	AIA N=5	ACC N=23	AMC N=8	AFSPACECOM N=8	USEUC N=7	STRATCOM N=9
A ORGANIZING AND PLANNING	7	5	14	8	9	8	8	15
B DIRECTING AND IMPLEMENTING	6	5	9	6	7	6	10	15
C INSPECTING AND EVALUATING	5	2	6	6	5	4	8	8
D TRAINING	3	1	6	3	5	3	3	3
E PERFORMING GENERAL ADMINISTRATIVE OR SUPPLY ACTIVITIES	9	7	9	8	10	8	7	12
F PERFORMING GENERAL IMAGERY SYS MAINTENANCE	4	4	5	4	6	5	7	7
G INSTALLING AND MAINTAINING PHOTOGRAPHIC PROCESSING EQUIPMENT	12	13	10	13	6	15	19	10
H INSTALLING AND MAINTAINING PHOTOGRAPHIC SUPPORT EQUIPMENT	8	22	26	16	5	12	22	19
I MAINTAINING PRINTER SYSTEMS	7	6	7	3	1	7	11	8
J MAINTAINING STILL CAMERA SYSTEMS	15	12	*	12	7	12	2	3
K INSTALLING MOTION PICTURE CAMERAS	0	0	0	*	*	4	*	0
L MAINTAINING GENERAL CAMERA EQUIPMENT	3	4	1	3	8	3	*	*
M MAINTAINING AUDIOVISUAL AND MULTIMEDIA SOUND EQUIPMENT	14	11	7	10	26	7	2	0
N MAINTAINING MOBILE INTELLIGENCE PROCESSING EXPLOITATION SYSTEM (MIPES)	0	0	0	*	0	4	*	0
O MAINTAINING GRAPHICS EQUIPMENT	7	7	0	7	5	1	*	0

\* Denotes less than 1 percent

NOTE: Columns may not add exactly to 100 percent due to rounding

## JOB SATISFACTION ANALYSIS

An examination of the job satisfaction indicators of various groups can give career ladder managers a better understanding of some of the factors which may affect the job performance of airmen in the career ladder. Attitude questions covering job interest, perceived utilization of talents and training, sense of accomplishment from work, and reenlistment intentions were included in the survey booklet to provide indications of job satisfaction. The responses of the current survey sample were then analyzed by making several comparisons: (1) amount TAFMS groups of the Imagery Systems Maintenance career ladder and a comparative sample of personnel from other Logistics career ladders surveyed in 1994 AFSCs 2A5X2, 2A6X4, 2A7X2, 2A7X4, 2E3X1, 2F0X1, and 2W1X1; (2) between current and previous survey experience groups; and (3) across specialty groups identified in the SPECIALTY JOBS section of the report.

Table 23 compares 1-48 months, 49-96 months, and 97+ months TAFMS data to corresponding enlistment groups from other Logistic career ladders surveyed during the previous calendar year. These data give a relative measure of how the job satisfaction of AFSC 2E5X1 personnel compares with similar Air Force specialties. Review of Table 23 reflects that responses from AFSC 2E5X1 TAFMS groups are close to the general responses of the other groups. Job interest for first term and second term groups is low, but jumps for the 97+ TAFMS group. Use of training tends to decrease over time. Overall, the general response of AFSC 2E5X1 career ladder personnel was positive and close to the comparative sample.

A comparison of job satisfaction for the TAFMS groups surveyed in 1995 and the previous survey done in 1992 is displayed in Table 24. These data indicate that the responses are generally close, with a slight decline in two areas; "Expressed Job Interest" in all the TAFMS groups and "Reenlistment Intentions" in the 1-48 months TAFMS group. Overall, job satisfaction for all three TAFMS groups is generally satisfactory.

Finally, a review of the job satisfaction data for personnel in the jobs identified in the SPECIALTY JOBS analysis (see Table 25) reveals that, overall, airmen responded positively to all the indicators listed.

When there are serious problems in a career ladder, survey respondents are usually quite free with write-in comments to complain about perceived problems in the field. Nineteen percent of the survey sample (17 incumbents) used the write-in feature to convey some type of information. Yet, only one of the comments received could be characterized as complaints pertaining to the career ladder. Additional duty titles and equipment maintained were noted among the comments received.

TABLE 23

**COMPARISON OF JOB SATISFACTION INDICATORS BY TAFMS GROUPS  
(PERCENT MEMBERS RESPONDING)**

	1-48 MOS TAFMS			49-96 MOS TAFMS			97+ MOS TAFMS		
	1995 2E5X1 (N=15)	COMP SAMPLE* (N=3,099)		1995 2E5X1 (N=20)	COMP SAMPLE* (N=2,781)		1995 2E5X1 (N=54)	COMP SAMPLE* (N=5,702)	
<u>EXPRESSED JOB INTEREST:</u>									
INTERESTING	53	63		50	61		74	69	
SO-SO	20	24		40	26		9	22	
DULL	27	13		10	13		17	9	
<u>PERCEIVED UTILIZATION OF TALENTS:</u>									
FAIRLY WELL TO PERFECTLY	67	68		75	71		80	79	
LITTLE OR NOT AT ALL	33	32		25	29		20	21	
<u>PERCEIVED UTILIZATION OF TRAINING:</u>									
FAIRLY WELL TO PERFECTLY	80	87		70	84		69	80	
LITTLE OR NOT AT ALL	20	11		30	14		31	18	
NOT IN RANGE		2			2			2	
<u>SENSE OF ACCOMPLISHMENT GAINED FROM WORK:</u>									
SATISFIED	73	68		70	69		70	73	
NEUTRAL	20	17		10	15		13	12	
DISSATISFIED	7	15		20	16		17	15	
<u>REENLISTMENT INTENTIONS:</u>									
YES, OR PROBABLY YES	53	66		85	81		72	76	
NO, OR PROBABLY NO	47	34		15	19		6	6	
PLAN TO RETIRE	0	0		0	0		22	18	

\* Comparative sample of Logistics career ladders surveyed in 1994 (includes AFSCs 2A5X2 Helicopter Maintenance, 2A6X4 Aircraft Fuel Systems, 2A7X2 Nondestructive Inspection, 2A7X4 Fabrication And Parachute, 2E3X1 Secure Communications Systems, 2F0X1 Fuels, and 2W1X1 Aircraft Armament Systems)

TABLE 24

COMPARISON OF JOB SATISFACTION INDICATORS FOR 2E5X1  
TAFMS GROUPS IN CURRENT AND PREVIOUS STUDY  
(PERCENT MEMBERS RESPONDING)

	1-48 MOS TAFMS		49-96 MOS TAFMS		97+ MOS TAFMS	
	1995 2E5X1 (N=15)	1992 SAMPLE (N=52)	1995 2E5X1 (N=20)	1992 SAMPLE (N=44)	1995 2E5X1 (N=54)	1992 SAMPLE (N=84)
<u>EXPRESSED JOB INTEREST:</u> INTERESTING SO-SO DULL	53 20 27	56 27 17	50 40 10	66 14 20	74 9 17	79 15 6
<u>PERCEIVED UTILIZATION OF TALENTS:</u> FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	67 33	71 29	75 25	69 30	80 20	81 19
<u>PERCEIVED UTILIZATION OF TRAINING:</u> FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL NOT IN RANGE	80 20	69 28	70 30	67 31	69 31	74 24
<u>REENLISTMENT INTENTIONS:</u> YES, OR PROBABLY YES NO, OR PROBABLY NO PLAN TO RETIRE	53 47 0	64 32 0	85 15 0	71 26 0	72 6 22	61 11 25

TABLE 25

## JOB SATISFACTION FOR SPECIALTY JOBS

	IMAGERY SYSTEMS MAINTENANCE TECHNICIAN (N=59)	SUPERVISOR/MANAGER (N=14)
<u>EXPRESSED JOB INTEREST:</u>		
INTERESTING	64	79
SO-SO	22	0
DULL	14	21
<u>PERCEIVED UTILIZATION OF TALENTS:</u>		
FAIRLY WELL TO PERFECTLY	83	79
LITTLE OR NOT AT ALL	17	21
<u>PERCEIVED UTILIZATION OF TRAINING:</u>		
FAIRLY WELL TO PERFECTLY	76	71
LITTLE OR NOT AT ALL	24	29
<u>SENSE OF ACCOMPLISHMENT GAINED FROM WORK:</u>		
SATISFIED	75	79
NEUTRAL	10	7
DISSATISFIED	15	14
<u>REENLISTMENT INTENTIONS:</u>		
YES, OR PROBABLY YES	77	57
NO, OR PROBABLY NO	15	7
PLAN TO RETIRE	8	36



## IMPLICATIONS

This survey was conducted primarily to provide training personnel with current information on the Imagery System Maintenance specialty for use in reviewing current training programs and training documents. Despite the diversity of equipment maintained by AFSC 2E5X1 personnel, the career ladder is homogeneous. The majority of AFSC 2E5X1 personnel spend much of their time doing imagery systems maintenance. Other members either work in a supervisory or management job.

Job progression shows a distinct pattern as one moves from the 3-skill level to the 7-skill level. The present classification structure, as described in AFMAN 36-2108 *Specialty Descriptions*, accurately portrays the jobs in this study. Analysis of career ladder documents indicates the CTS is primarily supported by survey data; however, training personnel and SMEs should review unsupported and unreferenced CTS items.

The findings of this OSR come directly from survey data collected from AFSC 2E5X1 personnel worldwide. These data are readily available to training and utilization personnel, functional managers, and other interested parties. Much of the data are compiled into extracts, which are excellent tools in the decision-making process. These data extracts should be used when training or utilization decisions are made.

APPENDIX A

SELECTED REPRESENTATIVE TASKS PERFORMED  
BY SPECIALTY JOB GROUPS

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**TABLE A1**  
**REPRESENTATIVE TASKS PERFORMED**  
**BY**  
**IMAGERY SYSTEMS MAINTENANCE TECHNICIAN CLUSTER**

<b>TASKS</b>	<b>TASK STATEMENT</b>	<b>PERCENT MEMBERS PERFORMING (N=59)</b>
F132	Remove or install general electrical hardware, such as switches or plugs	97
G150	Perform PMIs on processors or mini-labs	95
E111	Research technical orders or supply catalogs to locate or identify part or stock numbers	95
F130	Perform corrosion control on imagery systems equipment	93
E110	Inventory equipment, tools, or supplies	92
F133	Remove or install power cords	92
G171	Troubleshoot processor or mini-lab electrical or electronic systems	90
F128	Pack or unpack imagery systems equipment	90
E109	Annotate PMI logs, forms, or charts	88
G149	Perform operational checks on processors or mini-labs	88
G169	Troubleshoot processor or mini-lab chemical replenishing systems	88
G170	Troubleshoot processor or mini-lab drive systems	88
G159	Remove or install processor general electrical or electronic components	88
G173	Troubleshoot processor or mini-lab temperature control systems	86
H239	Perform PMIs on slide mounters	85
G172	Troubleshoot processor or mini-lab recirculation systems	85
G155	Remove or install processor drive system components	85
G174	Troubleshoot processor or mini lab water systems	85
G164	Remove or install processors	81
G145	Connect or disconnect processor water-mixing valves	80
F136	Troubleshoot electrical motors	80
E114	Maintain job control logs	78
H214	Perform operational checks on slide mounters	78
A16	Participate in general meeting, such as staff meetings, briefings, conferences, and workshops, other than conducting	78
G138	Adjust processor drive system components	78
G162	Remove or install processor rollers or roller bearing system components	76
E116	Maintain technical order (TO) or commercial publication files	75
H290	Troubleshoot slide mounters	75
M484	Perform operational checks on slide projectors	75
H188	Adjust slide mounters	75
E115	Maintain maintenance record files or forms	73
A5	Determine or establish work priorities	73
A14	Establish preventive maintenance inspection (PMI) programs	73

**TABLE A2**  
**REPRESENTATIVE TASKS PERFORMED**  
**BY**  
**SUPERVISORS/MANAGERS CLUSTER**

<b>TASKS</b>	<b>TASK STATEMENT</b>	<b>PERCENT MEMBERS PERFORMING (N=14)</b>
A16	Participate in general meeting, such as staff meetings, briefings, conferences, and workshops, other than conducting	100
A1	Assign personnel to work areas or duty positions	100
A13	Establish performance standards for subordinates	93
A19	Plan or schedule work assignments or priorities	93
A8	Develop or establish work methods or procedures	93
B33	Counsel subordinates concerning personal matters	93
A5	Determine or establish work priorities	86
C78	Write EPRs	86
E122	Review supply system report forms such as D04 (Daily Document Register) or D18 (Priority Monitor Report)	86
C67	Evaluate personnel for promotions, demotion, reclassification, or special awards	86
C66	Evaluate personnel for compliance with performance standards	86
B26	Adjust daily maintenance plans to meet operational commitments	86
B48	Interpret policies, directives, or procedures for subordinates	86
C57	Conduct performance evaluation feedback sessions	86
A11	Develop self-inspection program checklists	86
A3	Determine logistics requirements, such as equipment, personnel, or space	86
B30	Conduct supervisory orientations of newly assigned personnel	86
D99	Maintain training records, charts, graphs, or files	86
B43	Implement self-inspection programs	86
A2	Assign sponsors for newly assigned personnel	86
C80	Write recommendations for awards or decorations	79
C75	Inspect personnel for compliance with military standards	79
B36	Direct maintenance or utilization of equipment, supplies, materials, or workspace	79
C55	Analyze workload requirements	79
E108	Draft or write justification letters for supplies or equipment	79
A4	Determine or establish publication requirements	79
A15	Establish work schedules	79